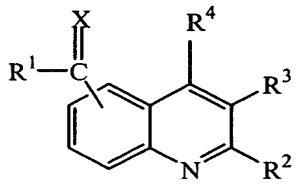
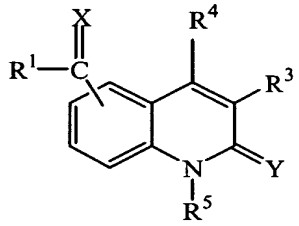
Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Original) A radiolabelled compound according to Formula (I-A)* or (I-B)*



(I-A)*

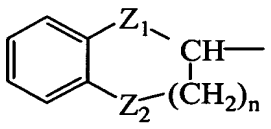


(I-B)*

an *N*-oxide form, a pharmaceutically acceptable addition salt, a quaternary amine and a stereochemically isomeric form thereof, wherein

X represents O; $C(R^6)_2$ with R^6 being hydrogen, aryl or C_{1-6}alkyl optionally substituted with amino or mono- or di(C_{1-6}alkyl)amino; S or N-R^7 with R^7 being amino or hydroxy;

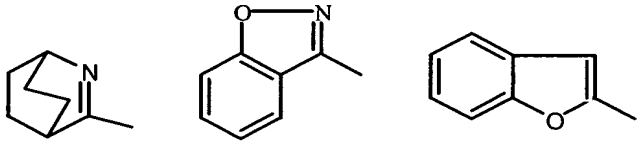
R^1 represents C_{1-6}alkyl; aryl; thienyl; quinolinyl; cycloC_{3-12}alkyl or (cycloC_{3-12}alkyl)C_{1-6}alkyl, wherein the cycloC_{3-12}alkyl moiety optionally may contain a double bond and wherein one carbon atom in the cycloC_{3-12}alkyl moiety may be replaced by an oxygen atom or an NR^8-moiety with R^8 being hydrogen, benzyl or C_{1-6}alkyloxycarbonyl ; wherein one or more hydrogen atoms in a C_{1-6}alkyl-moiety or in a cycloC_{3-12}alkyl-moiety optionally may be replaced by C_{1-6}alkyl, hydroxyC_{1-6}alkyl, haloC_{1-6}alkyl, aminoC_{1-6}alkyl, hydroxy, C_{1-6}alkyloxy, arylC_{1-6}alkyloxy, halo, C_{1-6}alkyloxycarbonyl, aryl, amino, mono– or di(C_{1-6}alkyl)amino, C_{1-6}alkyloxycarbonylamino, halo, piperazinyl, pyridinyl, morpholinyl, thienyl or a bivalent radical of formula –O-, -O-CH_2-O or –O-CH_2-CH_2-O-;
or a radical of formula (a-1)



a-1

wherein Z_1 is a single covalent bond, O, NH or CH_2;
Z_2 is a single covalent bond, O, NH or CH_2;
n is an integer of 0, 1, 2 or 3;
and wherein each hydrogen atom in the phenyl ring independently may optionally be replaced by halo, hydroxy, C_{1-6}alkyl, C_{1-6}alkyloxy or hydroxyC_{1-6}alkyl;

or X and R^1 may be taken together with the carbon atom to which X and R^1 are attached to form a radical of formula (b-1), (b-2) or (b-3);



b-1 b-2 b-3

R^2 represents hydrogen; halo; cyano; C_{1-6}alkyl; C_{1-6}alkyloxy; C_{1-6}alkylthio; C_{1-6}alkylcarbonyl; C_{1-6}alkyloxycarbonyl; C_{1-6}alkylcarbonyloxyC_{1-6}alkyl; C_{2-6}alkenyl; hydroxyC_{2-6}alkenyl; C_{2-6}alkynyl; hydroxyC_{2-6}alkynyl; tri(C_{1-6}alkyl)silaneC_{2-6}alkynyl; amino; mono- or di(C_{1-6}alkyl)amino; mono- or di(C_{1-6}alkyloxyC_{1-6}alkyl)amino; mono- or di(C_{1-6}alkylthioC_{1-6}alkyl)amino; aryl; arylC_{1-6}alkyl; arylC_{2-6}alkynyl; C_{1-6}alkyloxyC_{1-6}alkylaminoC_{1-6}alkyl; aminocarbonyl optionally substituted with C_{1-6}alkyl, C_{1-6}alkyloxyC_{1-6}alkyl, C_{1-6}alkyloxycarbonylC_{1-6}alkyl or pyridinylC_{1-6}alkyl;
a heterocycle selected from thienyl, furanyl, pyrrolyl, thiazolyl, oxazolyl, imidazolyl, isothiazolyl, isoxazolyl, pyrazolyl, pyridyl, pyrazinyl, pyridazinyl, pyrimidinyl, piperidinyl and piperazinyl, optionally N-substituted with C_{1-6}alkyloxyC_{1-6}alkyl, morpholinyl, thiomorpholinyl, dioxanyl or dithianyl ;
a radical –NH-C(=O)R^9 wherein R^9 represents

C_{1-6}alkyl optionally substituted with cycloC_{3-12}alkyl, C_{1-6}alkyloxy, C_{1-6}alkyloxycarbonyl, aryl, aryloxy, thienyl, pyridinyl, mono- or di(C_{1-6}alkyl)amino, C_{1-6}alkylthio, benzylthio, pyridinylthio or pyrimidinylthio; cycloC_{3-12}alkyl; cyclohexenyl; amino; arylcycloC_{3-12}alkylamino; mono-or-di(C_{1-6}alkyl)amino; mono- or di(C_{1-6}alkyloxycarbonylC_{1-6}alkyl)amino; mono- or di(C_{1-6}alkyloxycarbonyl)amino; mono-or di(C_{2-6}alkenyl)amino; mono- or di(arylC_{1-6}alkyl)amino; mono- or diarylamino; arylC_{2-6}alkenyl; furanylC_{2-6}alkenyl; piperididinyl; piperazinyl; indolyl; furyl; benzofuryl; tetrahydrofuryl; indenyl; adamantyl; pyridinyl; pyrazinyl; aryl; arylC_{1-6}alkylthio or a radical of formula (a-1) ;

a sulfonamid -NH-SO_2-R^{10} wherein R^{10} represents C_{1-6}alkyl, mono- or poly haloC_{1-6}alkyl, arylC_{1-6}alkyl, arylC_{2-6}alkenyl, aryl, quinolinyl, isoxazolyl or di(C_{1-6}alkyl)amino;

R^3 and R^4 each independently represent hydrogen; halo; hydroxy; cyano; C_{1-6}alkyl; C_{1-6}alkyloxy; C_{1-6}alkyloxyC_{1-6}alkyl; C_{1-6}alkylcarbonyl; C_{1-6}alkyloxycarbonyl; C_{2-6}alkenyl; hydroxyC_{2-6}alkenyl; C_{2-6}alkynyl; hydroxyC_{2-6}alkynyl; tri(C_{1-6}alkyl)silaneC_{2-6}alkynyl; amino; mono– or di(C_{1-6}alkyl)amino; mono– or di(C_{1-6}alkyloxyC_{1-6}alkyl)amino; mono– or di(C_{1-6}alkylthioC_{1-6}alkyl)amino; aryl; morpholinylC_{1-6}alkyl or piperidinylC_{1-6}alkyl ; or

R^2 and R^3 may be taken together to form –R^2-R^3-, which represents a bivalent radical of formula –$(CH_2)_3$-, –$(CH_2)_4$-, –$(CH_2)_5$-, –$(CH_2)_6$-, –CH=CH-CH=CH-, –Z_4-CH=CH-, -CH=CH-Z_4-, –Z_4-CH_2-CH_2-CH_2-, -CH_2-Z_4-CH_2-CH_2-, -CH_2-CH_2-Z_4-CH_2-, -CH_2-CH_2-CH_2-Z_4-, -Z_4-CH_2-CH_2-, -CH_2-Z_4-CH_2- or -CH_2-CH_2-Z_4-, with Z_4 being O, S, SO_2 or NR^{11} wherein R^{11} is hydrogen, C_{1-6}alkyl, benzyl or C_{1-6}alkyloxycarbonyl; and wherein each bivalent radical is optionally substituted with C_{1-6}alkyl.

or R^3 and R^4 may be taken together to form a bivalent radical of formula -CH=CH-CH=CH- or –CH_2-CH_2-CH_2-CH_2- ;

R^5 represents hydrogen; cycloC_{3-12}alkyl; piperidinyl; oxo-thienyl; tetrahydrothienyl, arylC_{1-6}alkyl; C_{1-6}alkyloxyC_{1-6}alkyl; C_{1-6}alkyloxycarbonylC_{1-6}alkyl or C_{1-6}alkyl optionally substituted with a radical C(=O)NR_xR_y, in which R_x and R_y, each independently are hydrogen, cycloC_{3-12}alkyl, C_{2-6}alkynyl or C_{1-6}alkyl optionally

substituted with cyano, C_{1-6}alkyloxy, C_{1-6}alkyloxycarbonyl, furanyl, pyrrolidinyl, benzylthio, pyridinyl, pyrrolyl or thienyl;

Y represents O or S;

or Y and R^5 may be taken together to form =Y-R^5- which represents a radical of formula

-CH=N-N= (c-1);

-N=N-N= (c-2); or

-N-CH=CH- (c-3);

aryl represents phenyl or naphthyl optionally substituted with one or more substituents selected from halo, hydroxy, C_{1-6}alkyl, C_{1-6}alkyloxy, phenyloxy, nitro, amino, thio, C_{1-6}alkylthio, haloC_{1-6}alkyl, polyhaloC_{1-6}alkyl, polyhaloC_{1-6}alkyloxy, hydroxyC_{1-6}alkyl, C_{1-6}alkyloxyC_{1-6}alkyl, aminoC_{1-6}alkyl, mono-or di(C_{1-6}alkyl)amino; mono-or di(C_{1-6}alkyl)aminoC_{1-6}alkyl, cyano, -CO-R^{12}, -CO-OR^{13}, -$NR^{13}SO_2R^{12}$, -SO_2-$NR^{13}R^{14}$, -$NR^{13}C(O)R^{12}$, -C(O)$NR^{13}R^{14}$, -SOR^{12}, -SO_2R^{12}; wherein each R^{12}, R^{13} and R^{14} independently represent C_{1-6}alkyl; cycloC_{3-6}alkyl; phenyl; phenyl substituted with halo, hydroxy, C_{1-6}alkyl, C_{1-6}alkyloxy, haloC_{1-6}alkyl, polyhaloC_{1-6}alkyl, furanyl, thienyl, pyrrolyl, imidazolyl, thiazolyl or oxazolyl;

and when the R^1-C(=X) moiety is linked to another position than the 7 or 8 position, then said 7 and 8 position may be substituted with R^{15} and R^{16} wherein either one or both of R^{15} and R^{16} represents C_{1-6}alkyl, C_{1-6}alkyloxy or R^{15} and R^{16} taken together may form a bivalent radical of formula -CH=CH-CH=CH-.

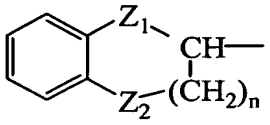
2. (Currently Amended) A radiolabelled compound according to claim 1, wherein ~~characterized in that,~~

X represents O; C(R^6)$_2$ with R^6 being hydrogen or aryl ; or N-R^7 with R^7 being amino or hydroxy;

R^1 represents C_{1-6}alkyl, aryl; thienyl; quinolinyl; cycloC_{3-12}alkyl or (cycloC_{3-12}alkyl)C_{1-6}alkyl, wherein the cycloC_{3-12}alkyl moiety optionally may contain a double bond and wherein one carbon atom in the cycloC_{3-12}alkyl moiety may be replaced by an oxygen atom or an NR^8-moiety with R^8 being benzyl or C_{1-6}alkyloxycarbonyl ; wherein one or more hydrogen atoms in a C_{1-6}alkyl-moiety or in a cycloC_{3-12}alkyl-moiety optionally may be replaced by C_{1-6}alkyl, haloC_{1-6}alkyl, hydroxy, C_{1-6}alkyloxy, arylC_{1-6}alkyloxy, halo, aryl, mono– or di(C_{1-6}alkyl)amino, C_{1-6}alkyloxycarbonylamino,

halo, piperazinyl, pyridinyl, morpholinyl, thienyl or a bivalent radical of formula –O- or -O-CH_2-CH_2-O-;

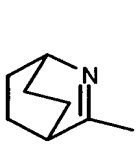
or a radical of formula (a-1)



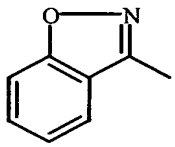
a-1

wherein Z_1 is a single covalent bond, O or CH_2;
Z_2 is a single covalent bond, O or CH_2;
n is an integer of 0, 1, or 2 ;
and wherein each hydrogen atom in the phenyl ring independently may optionally be replaced by halo or hydroxy;

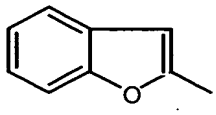
or X and R^1 may be taken together with the carbon atom to which X and R^1 are attached to form a radical of formula (b-1), (b-2) or (b-3);



b-1



b-2



b-3

R^2 represents hydrogen; halo; cyano; C_{1-6}alkyl; C_{1-6}alkyloxy; C_{1-6}alkylthio; C_{1-6}alkylcarbonyl; C_{1-6}alkyloxycarbonyl; C_{2-6}alkenyl; hydroxyC_{2-6}alkenyl; C_{2-6}alkynyl; hydroxyC_{2-6}alkynyl; tri(C_{1-6}alkyl)silaneC_{2-6}alkynyl; amino; mono– or di(C_{1-6}alkyl)amino; mono– or di(C_{1-6}alkyloxyC_{1-6}alkyl)amino; mono– or di(C_{1-6}alkylthioC_{1-6}alkyl)amino; aryl; arylC_{1-6}alkyl; arylC_{2-6}alkynyl; C_{1-6}alkyloxyC_{1-6}alkylaminoC_{1-6}alkyl; aminocarbonyl optionally substituted with C_{1-6}alkyloxycarbonylC_{1-6}alkyl ; a heterocycle selected from thienyl, furanyl, thiazolyl and piperidinyl, optionally N-substituted with morpholinyl or thiomorpholinyl; a radical –NH-C(=O)R^9 wherein R^9 represents C_{1-6}alkyl optionally substituted with cycloC_{3-12}alkyl, C_{1-6}alkyloxy, C_{1-6}alkyloxycarbonyl, aryl, aryloxy, thienyl, pyridinyl, mono- or di(C_{1-6}alkyl)amino, C_{1-6}alkylthio, benzylthio, pyridinylthio or pyrimidinylthio; cycloC_{3-12}alkyl; cyclohexenyl; amino; arylcycloC_{3-12}alkylamino;

mono-or-di(C_{1-6}alkyl)amino; mono- or di(C_{1-6}alkyloxycarbonylC_{1-6}alkyl)amino; mono- or di(C_{1-6}alkyloxycarbonyl)amino; mono-or di(C_{2-6}alkenyl)amino; mono- or di(arylC_{1-6}alkyl)amino; mono- or diarylamino; arylC_{2-6}alkenyl; furanylC_{2-6}alkenyl; piperididinyl; piperazinyl; indolyl; furyl; benzofuryl; tetrahydrofuryl; indenyl; adamantyl; pyridinyl; pyrazinyl; aryl or a radical of formula (a-1) ; a sulfonamid -NH-SO_2-R^{10} wherein R^{10} represents C_{1-6}alkyl, mono- or poly haloC_{1-6}alkyl, arylC_{1-6}alkyl or aryl;

R^3 and R^4 each independently represent hydrogen; C_{1-6}alkyl; C_{1-6}alkyloxyC_{1-6}alkyl; C_{1-6}alkyloxycarbonyl; or

R^2 and R^3 may be taken together to form –R^2-R^3-, which represents a bivalent radical of formula –$(CH_2)_4$-, –$(CH_2)_5$-, –Z_4-CH=CH-, –Z_4-CH_2-CH_2-CH_2- or -Z_4-CH_2-CH_2-, with Z_4 being O, S, SO_2 or NR^{11} wherein R^{11} is hydrogen, C_{1-6}alkyl, benzyl or C_{1-6}alkyloxycarbonyl; and wherein each bivalent radical is optionally substituted with C_{1-6}alkyl;

or R^3 and R^4 may be taken together to form a bivalent radical of formula -CH=CH-CH=CH- or –CH_2-CH_2-CH_2-CH_2- ;

R^5 represents hydrogen; piperidinyl; oxo-thienyl; tetrahydrothienyl, arylC_{1-6}alkyl; C_{1-6}alkyloxycarbonylC_{1-6}alkyl or C_{1-6}alkyl optionally substituted with a radical C(=O)NR_xR_y, in which R_x and R_y, each independently are hydrogen, cycloC_{3-12}alkyl, C_{2-6}alkynyl or C_{1-6}alkyl optionally substituted with cyano, C_{1-6}alkyloxy or C_{1-6}alkyloxycarbonyl;

Y represents O or S;

or Y and R^5 may be taken together to form =Y-R^5- which represents a radical of formula

-CH=N-N= (c-1); or

-N=N-N= (c-2);

aryl represents phenyl or naphthyl optionally substituted with one or more substituents selected from halo, C_{1-6}alkyloxy, phenyloxy, mono-or di(C_{1-6}alkyl)amino and cyano;

and when the R^1-C(=X) moiety is linked to another position than the 7 or 8 position, then said 7 and 8 position may be substituted with R^{15} and R^{16} wherein either one or both of R^{15} and R^{16} represents C_{1-6}alkyl or R^{15} and R^{16} taken together may form a bivalent radical of formula -CH=CH-CH=CH-.

3. (Currently Amended) A radiolabelled compound according to claim 1, wherein, ~~any one of claims 1 - 2, characterized in that,~~

X represents O;

R^1 represents C_{1-6}alkyl; cycloC_{3-12}alkyl or (cycloC_{3-12}alkyl)C_{1-6}alkyl, wherein one or more hydrogen atoms in a C_{1-6}alkyl-moiety or in a cycloC_{3-12}alkyl-moiety optionally may be replaced by C_{1-6}alkyloxy, aryl, halo or thienyl;

R^2 represents hydrogen; halo; C_{1-6}alkyl or amino;

R^3 and R^4 each independently represent hydrogen or C_{1-6}alkyl; or

R^2 and R^3 may be taken together to form $-R^2-R^3-$; which represents a bivalent radical of formula $-Z_4-CH_2-CH_2-CH_2-$ or $-Z_4-CH_2-CH_2-$ with Z_4 being O or NR^{11} wherein R^{11} is C_{1-6}alkyl; and wherein each bivalent radical is optionally substituted with C_{1-6}alkyl;

or R^3 and R^4 may be taken together to form a bivalent radical of formula $-CH_2-CH_2-CH_2-CH_2-$;

R^5 represents hydrogen;

Y represents O; and

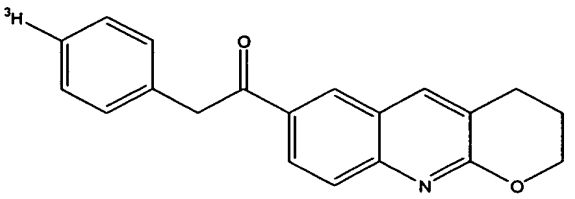
aryl represents phenyl optionally substituted with halo.

4. (Currently Amended) A radiolabelled compound according to claim 1, wherein, ~~any one of claims 1-3, characterized in that~~ the R^1-C(=X) moiety is linked to the quinoline or quinolinone moiety in position 6.

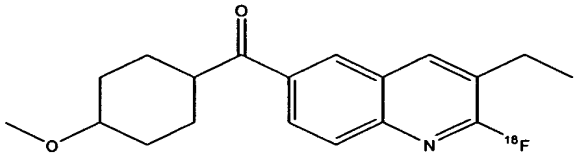
5. (Currently Amended) A radiolabelled compound according to claim 1, wherein ~~any one of claims 1 - 4, characterized in that~~ the compound contains at least one radioactive atom.

6. (Currently Amended) A radiolabelled compound according to claim 5, wherein ~~characterized in that~~ the radioactive isotope is selected from the group of ~~of~~ ^3H, ^{11}C and ^{18}F.

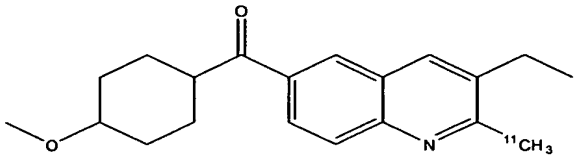
7. (Currently Amended) A radiolabelled compound according to claim 6, wherein ~~characterized in that~~ the compound is any one of compounds (a), (b), (c), (d) and (e) :



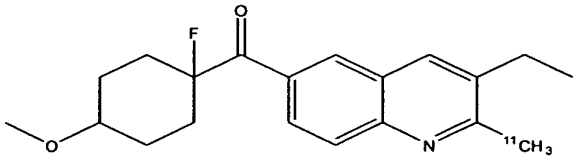
(a)



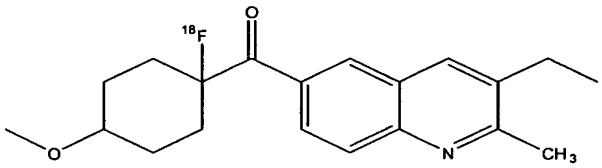
(b)



(c)



(d)



(e)

8. (Currently Amended) A radiolabelled compound according to claim 6, wherein, ~~characterized in that~~ the compound is compound (a).

9. (Currently Amended) Radioactive composition for the administration to mamals comprising a therapeutically effective amount of a radiolabelled compound according to claim 1 ~~any of claims 1-8~~ and a pharmaceutically acceptable carrier or diluent.

10. (Currently Amended) A radiolabelled compound according to claim 1 ~~any one of claims 1-8 or a composition according to claim 9~~ for use in a diagnostic method.

11. (Currently Amended) A radiolabelled compound according to claim 1, wherein ~~any one of claims 1-8 or a composition according to claim 9, characterized in that~~ the

diagnostic method consists of marking or identifying a mGlu1 receptor in biological material.

12. (Currently Amended) A radiolabelled compound according to claim 1, wherein ~~any one of claims 1-8 or a composition according to claim 9, characterized in that~~ the marking consists of administering the radiolabelled compound to biological material and the identifying consists of detecting the emissions from the radiolabelled compound.

13. (Currently Amended) A radiolabelled compound according to claim 1, wherein ~~any one of claims 1-8 or a composition according to claim 9, characterized in that~~ the diagnostic method consists of screening whether a test compound has the ability to occupy or bind to a mGlu1 receptor in biological material.

14. (Currently Amended) A radiolabelled compound or composition according to claim 1, wherein ~~any one of claims 11 – 13, characterized in that~~ the biological material is selected from the group of tissue samples, plasma fluids, body fluids, body parts and organs originating from warm-blooded animals and warm-blooded animals *per se*, in particular humans.

15. (Currently Amended) A radiolabelled compound according to claim 1 ~~any one of claims 1-8 or a composition according to claim 9~~ for the manufacture of a diagnostic tool for marking or identifying an mGlu1 receptor in biological material.

16. (Currently Amended) Use of a radiolabelled compound or composition according to claim 15, wherein ~~characterized in that~~ the marking consists of administering the radiolabelled compound to biological material and the identifying consists of detecting the emissions from the radiolabelled compound.

17. (Currently Amended) A radiolabelled compound according to claim 1 ~~any one of claims 1-8 or a composition according to claim 9~~ for the manufacture of a diagnostic tool for screening whether a test compound has the ability to occupy or bind to a mGlu1 receptor in biological material